

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
18 November 2004 (18.11.2004)

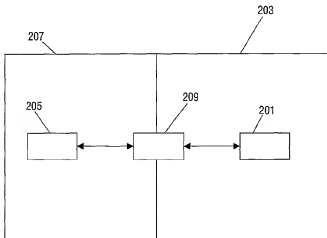
PCT

(10) International Publication Number
WO 2004/100499 A1

- (51) International Patent Classification⁷: **H04L 29/12** (74) Agent: GROENENDAAL, Antonius, W., M.: Prof. Ilo-slaan 6, NL-5656 AA Eindhoven (NL).
- (21) International Application Number: PCT/IB2004/050578 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 4 May 2004 (04.05.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 03101259.4 7 May 2003 (07.05.2003) EP
- (71) Applicant (for all designated States except US): KONIN-KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventors; and (75) Inventors/Applicants (for US only): NIKOLOVA, Mari-ana, V. [BG/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). SIMONS, David, P., L. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: A COMMUNICATION NETWORK, A NETWORK ELEMENT AND COMMUNICATION PROTOCOL AND METHOD OF ADDRESS AUTO-CONFIGURATION THEREFOR



(57) Abstract: The invention relates to a system for address auto-configuration for a first network element (201), being part of a first network (203) connected to a second network (207) through a gateway element (209). The first network element transmits an address inquiry message to a second network element (205) requesting an address of the gateway element (209). The second network element (205) in response transmits an address response message comprising a gateway address of the gateway element (209). Upon receiving the address response message, the first network element generates a first address in response to the gateway address. The gateway element (209) may specifically be an IPv4 home router for a private home network and the first network element (201) may be a combined IPv6/IPv4 network element. The first network element (201) may be provided with the public IPv4 address of the private home network from the second network element (205) thereby enabling it to generate an IPv6 address from the public IPv4 address.

WO 2004/100499 A1